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| Office Action Summary | Application No. 10/810,635 | Applicant(s) CHO ET AL. | |
| | Examiner HELEN SHIBRU | Art Unit 2621 | |

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 28 April 2008.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-4,6,8,9 and 14-36 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-4,6,8,9 and 14-36 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 29 March 2004 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|--|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input checked="" type="checkbox"/> Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date <u>03/17/08,04/18/08,04/28/08,05/22/08</u> . | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Response to Amendment

1. The amendments filed on 04/28/2008 have been entered and made of record. Claims 1-4, 6, 8-9, and 14-36 are pending.

Response to Arguments

2. Applicant's arguments with respect to claims 1-4, 6, 8-9, and 14-36 have been considered but are moot in view of the new ground(s) of rejection.

Claim Rejections - 35 USC § 103

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

4. Claims 1-4, 6, 8-9, and 14-36 are rejected under 35 U.S.C. 103(a) as being unpatentable over Okada (US PG PUB 2002/0046328) in view of Yamamoto (US Pat. No. 5,742,569) and further in view of Sacki (US PG Pub 20010043790), Sugimoto (US PG PUB 20010038745) and Official Notice.

Regarding claim 1, Okada discloses a recording medium having a data structure for managing reproduction of at least video data representing multiple reproduction paths, comprising:

a data area storing at least video data as a transport stream in more than one file, each file associated with a different one of the multiple reproduction paths (see page 2 paragraphs 0034-0037, page 8 paragraph 0175, paragraph 0193 and 0234, and figures 4, 26, and 29).

Claim 1 differs from Okada in that the claim further requires a navigation area storing at least one navigation list, the at least one navigation list including one or more navigation data items and controlling a reproduction order of the one or more navigation data items.

In the same field of endeavor Yamamoto discloses a navigation area storing at least one navigation list, the at least one navigation list including one or more navigation data items and controlling a reproduction order of the one or more navigation data items (see fig. 6, col. 12 lines 1-34, where it teaches the PGCI includes program information and cell information, col. 15 line 29-col. 16 line 40 and figs. 5, 7A and 7B). Therefore in light of the teaching in Yamamoto it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify Okada by including navigation units in order to control the data.

Claim 1 further differs from the above proposed combinations in that the claim further requires at least one navigation data item referencing more than one map, each map being associated with one of the files and providing, position data for the video data of the associated file.

In the same field of endeavor Saeki discloses at least one navigation data item referencing more than one map, each map being associated with one of the files and providing, position data for the video data of the associated file (see fig. 9 where it shows cell #1 referencing more than one map and each map are associated with one of the files. See also the abstract, paragraphs 0067, 0100, 0107-0118 and fig. 11). Therefore in light of the teaching in Saeki it would have

been obvious to one of ordinary skill in the art at the time the invention was made to modify the above proposed combination by providing a navigation data item referencing more than one map in order to arrange address.

Claim 1 further differs from the above proposed combination in that the claim further requires the at least one navigation data item including an indicator for indicating that the corresponding at least one navigation data item is provided for the multiple reproduction paths.

In the same field of endeavor Sugimoto discloses when plural reproduction paths are present, a plurality of entry points (*referring to indicator*) are set for each movie or still image cell (see paragraph 0682). Sugimoto further discloses entry point contained in a cell (see figure 45). Sugimoto further discloses the entry points are recorded in M_CI for each movie cell and S_CI for each still image cell. In addition Sugimoto discloses management information having a plurality of reproduction entry points for each of the reproduction paths. Therefore in light of the teaching in Sugimoto it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the above proposed combination in order to skip to various points as desired in any of the possible paths.

Claim 1 further differs from Sugimoto, Saeki, Okada and Yamamoto in that the claim further requires the files being interleaved with one another.

Official Notice is taken that it is well known in the art to have files being interleaved with one another. Therefore it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the above combination by including interleaved files in order to reproduce split or combined data seamlessly.

Regarding claim 2, Okada discloses wherein each file is divided into data blocks, and the files are interleaved with one another on a data block by data block basis (see figure 29, see also figs. 2 and 5 in Yamamoto, see also claim 1 rejection above).

Regarding claim 3, Okada discloses wherein each data block represents at least an intra-coded picture of video data (see figure 12 and paragraphs 0005-0009 in page 1 and paragraph 0167 in page 8, see also fig. 2 in Yamamoto).

Regarding claim 4, Okada discloses wherein each data block represents at least one group of pictures (GOP) (see figure 4 in Okada and fig. 2 in Yamamoto).

Regarding claim 6, Yamamoto discloses each of the one or more navigation data items provide navigation information for reproducing at least one of the files (see col. 12 lines 1-34).

Regarding claims 8 and 9, Yamamoto discloses the at least one navigation data item includes a multiple reproduction path indicator indicating that the at least one navigation data item provides navigation information for multiple reproduction paths (see rejection of claim 1 above).

Regarding claim 14, Okada discloses each reproduction path represents a digital channel (see pages 1-2).

Regarding claims 15, Okada discloses each reproduction path represents a sub-channel of an RF channel (see pages 1-2).

Regarding claim 16, limitation of claim 16 can be found in claim 1 above. Therefore claim 16 is analyzed and rejected for the same reason as discussed in claim 1 above.

Regarding claim 17, Okada discloses a method of reproducing a data structure for managing reproduction duration of at least video data representing multiple reproduction paths, comprising:

reproducing at least the video data as a transport stream in more than one file from the recording medium, each file associated with a different one of the multiple reproduction paths, (see paragraphs 0013-0048).

Claim 17 differs from Okada in that the claim further requires reproducing at least one navigation list, one or more navigation items and a plurality of maps, the at least one navigation list including one or more navigation data items controlling a reproduction order of the one or more navigation data items, at least one navigation data item referencing more than one map, each map being associated with one of the files and providing position data for the video data of the associated file.

In the same field of endeavor Yamamoto discloses reproducing at least one navigation list, one or more navigation items and a plurality of maps, the at least one navigation list including one or more navigation data items controlling a reproduction order of the one or more navigation data items (see Yamamoto's claim 9, fig. 6, col. 12 lines 1-34, where it teaches the PGCI includes program information and cell information, col. 15 line 29-col. 16 line 40 and figs. 5, 7A and 7B). Therefore in light of the teaching in Yamamoto it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify Okada by including navigation units in order to control the data.

Claim 17 further differs from the above proposed combinations in that the claim further requires at least one navigation data item referencing more than one map, each map being

associated with one of the files and providing, position data for the video data of the associated file.

In the same field of endeavor Saeki discloses at least one navigation data item referencing more than one map, each map being associated with one of the files and providing, position data for the video data of the associated file (see fig. 9 where it shows cell #1 referencing more than one map and each map are associated with one of the files. See also the abstract, paragraphs 0067, 0100, 0107-0118 and fig. 11). Therefore in light of the teaching in Saeki it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the above proposed combination by providing a navigation data item referencing more than one map in order to arrange address.

Claim 17 further differs from the above proposed combination in that the claim further requires the at least one navigation data item including an indicator for indicating that the corresponding at least one navigation data item is provided for the multiple reproduction paths.

In the same field of endeavor Sugimoto discloses when plural reproduction paths are present, a plurality of entry points (*referring to indicator*) are set for each movie or still image cell (see paragraph 0682). Sugimoto further discloses entry point contained in a cell (see figure 45). Sugimoto further discloses the entry points are recorded in M_CI for each movie cell and S_CI for each still image cell. In addition Sugimoto discloses management information having a plurality of reproduction entry points for each of the reproduction paths. Therefore in light of the teaching in Sugimoto it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the above proposed combination in order to skip to various points as desired in any of the possible paths.

Claim 17 further differs from Sugimoto, Saeki, Okada and Yamamoto in that the claim further requires the files being interleaved with one another.

Official Notice is taken that it is well known in the art to have files being interleaved with one another. Therefore it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the above combination by including interleaved files in order to reproduce split or combined data seamlessly.

Regarding claim 18, Okada discloses an apparatus for recording a data structure for managing reproduction duration at least video data representing multiple reproduction paths, comprising: a pick up configured to record data on a recording medium; a controller for controlling the driver to record at least video data as a transport stream in more than one file on the recording medium, each file associated with a different one of the multiple reproduction paths, and the files associated with a different one of the multiple reproduction paths (see figure 12 and rejection of claim)

Claim 18 differs from Okada in that the claim further requires the controller configured further to control recording at least one navigation list, one or more navigation data items and a plurality of maps, the at least one navigation list including one or more navigation data items controlling a reproduction order of the one or more navigation data items, at least one navigation data item referencing more than one map, each map being associated with one of the files and providing position data for the video data associated file.

In the same field of endeavor Yamamoto discloses reproducing at least one navigation list, one or more navigation items and a plurality of maps, the at least one navigation list including one or more navigation data items controlling a reproduction order of the one or more

navigation data items (see Yamamoto's claim 9, fig. 6, col. 12 lines 1-34, where it teaches the PGCI includes program information and cell information, col. 15 line 29-col. 16 line 40 and figs. 5, 7A and 7B). Therefore in light of the teaching in Yamamoto it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify Okada by including navigation units in order to control the data.

Claim 18 further differs from the above proposed combinations in that the claim further requires at least one navigation data item referencing more than one map, each map being associated with one of the files and providing, position data for the video data of the associated file.

In the same field of endeavor Saeki discloses at least one navigation data item referencing more than one map, each map being associated with one of the files and providing, position data for the video data of the associated file (see fig. 9 where it shows cell #1 referencing more than one map and each map are associated with one of the files. See also the abstract, paragraphs 0067, 0100, 0107-0118 and fig. 11). Therefore in light of the teaching in Saeki it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the above proposed combination by providing a navigation data item referencing more than one map in order to arrange address.

Claim 18 further differs from the above proposed combination in that the claim further requires the at least one navigation data item including an indicator for indicating that the corresponding at least one navigation data item is provided for the multiple reproduction paths.

In the same field of endeavor Sugimoto discloses when plural reproduction paths are present, a plurality of entry points (*referring to indicator*) are set for each movie or still image

cell (see paragraph 0682). Sugimoto further discloses entry point contained in a cell (see figure 45). Sugimoto further discloses the entry points are recorded in M_CI for each movie cell and S_CI for each still image cell. In addition Sugimoto discloses management information having a plurality of reproduction entry points for each of the reproduction paths. Therefore in light of the teaching in Sugimoto it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the above proposed combination in order to skip to various points as desired in any of the possible paths.

Claim 18 further differs from Sugimoto, Saeki, Okada and Yamamoto in that the claim further requires the files being interleaved with one another.

Official Notice is taken that it is well known in the art to have files being interleave with one another. Therefore it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the above combination by including interleaved files in order to reproduce split or combined data seamlessly.

Claim 19 is rejected for the same reason as discussed in claims 17-18 above. See also figure 12 in Okada where it shows reproducing unit.

Claim 20 is rejected for the same reason as discussed in claim 1 above.

Claims 21-24 are rejected for the same reason as discussed in claims 2, 3, 8 and 15 respectively above.

Claims 25-28 are rejected for the same reason as discussed in claims 2, 3, 8 and 15 respectively above.

Claims 29-32 are rejected for the same reason as discussed in claims 2, 3, 8 and 15 respectively above.

Claims 33-36 are rejected for the same reason as discussed in claims 2, 3, 8 and 15 respectively above.

Conclusion

5. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Kashiwagi et al. (US Pat. No. 6,393,574) discloses interleaved files.

6. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

7. Any inquiry concerning this communication or earlier communications from the examiner should be directed to HELEN SHIBRU whose telephone number is (571)272-7329. The examiner can normally be reached on M-F, 8:30AM-5PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, THAI Q. TRAN can be reached on (571) 272-7382. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/HELEN SHIBRU/
Examiner, Art Unit 2621
July 2, 2008

/Thai Tran/
Supervisory Patent Examiner, Art Unit 2621